

Message

From: Kappelman, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=AB505B2FB021469A954A5C082F7E77C3-KAPPELMAN, DAVID]
Sent: 4/9/2019 11:48:06 PM
To: LEE, LILY [LEE.LILY@EPA.GOV]
CC: Nguyen, Lyndsey [Nguyen.Lyndsey@epa.gov]
Subject: Re: How much Cs-137 on soil would be expected from fallout?

I think 1-5 pCi/g in undisturbed surface soil is typical; however, I haven't seen any report of any increase of Cs-137 concentrations in surface soil following Fukushima but concentrations could have gone up in some locations.

Sent from my iPhone

On Apr 9, 2019, at 7:02 PM, LEE, LILY <LEE.LILY@epa.gov> wrote:

If soil samples measured at a fixed lab found levels consistent with those below, then a MDC of 2.3 may be acceptable, right?

From: BANDROWSKI, MIKE
Sent: Monday, May 7, 2018 2:15 PM
To: LEE, LILY <LEE.LILY@EPA.GOV>
Cc: Freed, Rachel <freed.rachel@epa.gov>
Subject: RE: How much Cs-137 on soil would be expected from fallout?

Lily- I took a look at the information you sent and at some studies I found on line and if your question is whether it is possible for the levels you listed of 2-3 pCi/g in soil as being from atmospheric testing, then I would say that yes, those levels seem possible. My review of some on line studies show levels around the US in soil from atmospheric deposition of 0.3 – 3 pCi/g and as high as 14 pCi/g.

Of course the best way to determine levels in soil in the area would be to measure Cs-137 in some control areas around San Francisco. I don't know if that has been done or not, but would guess someone has, although I did not see anything on line.

In any case, let me know if this is what information you were looking for or if I am off the mark.

Mike Bandrowski | Manager, Office of Air Toxics, Radiation and Indoor Air
U.S. Environmental Protection Agency | Region 9 | Air Division, Air-6 | 75 Hawthorne St |
San Francisco, CA 94105 | Tel 415.947-4194 | bandrowski.mike@epa.gov

From: LEE, LILY
Sent: Monday, May 07, 2018 12:09 PM
To: BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>
Cc: Freed, Rachel <freed.rachel@epa.gov>
Subject: FW: How much Cs-137 on soil would be expected from fallout?

Dear Mike,

Thank you. None of my health physicists know the local data, so they were hoping you would. And they deal with contamination in soil, bldgs., & gw mostly, so they don't know as much about fallout. Finally, they're all on the road this wk at other sites. So I appreciate your knowledge to make sure I have the right facts.

Lily

From: BANDROWSKI, MIKE

Sent: Monday, May 7, 2018 11:36 AM

To: LEE, LILY <LEE.LILY@EPA.GOV>; Freed, Rachel <freed.rachel@epa.gov>

Subject: RE: How much Cs-137 on soil would be expected from fallout?

Lily- I will take a look at this and let you know my thoughts. In general, however, the Air Division Radiation Program is not set up to provide radiation support for Superfund sites. Our expertise is not in the soil clean up or remediation area and you would be able to get better advice from Superfund staff. I thought Superfund recently hired a radiation person to provide this type of support?

There is also a possibility that our HQ or lab personnel might be able to offer some support for this effort, but that would best require management request at a higher level. I could help coordinate, but it would be good if you could get your Division management on board to make the request.

I will take a look at what you sent and give you any thoughts in the next day or two.

Mike Bandrowski | Manager, Office of Air Toxics, Radiation and Indoor Air
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San Francisco, CA 94105 | Tel 415.947-4194 | bandrowski.mike@epa.gov

From: LEE, LILY

Sent: Sunday, May 06, 2018 9:15 PM

To: Freed, Rachel <freed.rachel@epa.gov>; BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>

Subject: How much Cs-137 on soil would be expected from fallout?

Dear Rachel and Mike,

I hope you are well. I'm sorry to have been out of touch for so long. I wanted to update you with some recent articles about Hunters Point and health concerns, links below. Can I ask your advice? Could you read these articles? They talk about a finding of Cs-137 at 2-3 pCi/g downhill from current housing. Can I give one or both of you a call to get your perspectives?

I have heard of a Wallow study with SF Bay Area data. My geologist gave me the links below and the attached papers.

And a link to a website that includes a link to a map of cs-137 levels by county across the US

The EPA fact sheet on Cs-137 discusses the presence of deposited Cs-137 worldwide. <https://semspub.epa.gov/work/HQ/176308.pdf>

<https://ieer.org/resource/factsheets/fact-sheet-fallout-report-related/> (has link to map of Cs-137 across the US by county)

The Chronicle ran another above-the-fold front-page piece on Hunters Point 5/6 that incorporates some of the responses we sent 5/4. It's a very lengthy investigative piece built around reports from a Tetra Tech subcontractor that focuses a good deal in the 2002 EPA scanner van assessment of Parcel A. Link below:

<https://www.sfchronicle.com/bayarea/article/At-tainted-San-Francisco-shipyard-is-safe-12891168.php?t=175c3c1c11>

In addition, here is another article dated 5/4 from SF
Curbed<https://sf.curbed.com/2018/5/4/17320698/hunters-point-shipyards-safe-fraud-scandal-contamination-testing>

From EPA to San Fran Chronicle reporters Fri 5/4:

Hi Cynthia,

Below are answers to your specific questions. Regarding the background information, we will need more information before we can evaluate these two concerns that you listed:

“samples taken from manholes in Parcel A around February 2004 that tested high for radium-226.”

“Tetra Tech was responsible for some cleanup on Parcel A, including filling excavated areas with soil they said was clean.”

If there are any additional details to share about these concerns, individuals can contact EPA’s cleanup project manager Lily Lee at 415-947-4187 and lee.lily@epa.gov.

In the meantime, based on the information we have at this time, below are answers to your specific questions.

Thanks!

Michele

Q1: Do you still maintain that the EPA’s 2002 scanner van results are meaningful? Was it reasonable for the EPA to rely in part on the scanner van results in its decision to approve the transfer of Parcel A to San Francisco? (In a 2016 fact sheet on Parcel A, the EPA listed the 2002 scanner van survey as one reason that led to the EPA’s approval of the transfer.

The scanner van technology is a “first look” at locating gamma emitting radionuclide contamination at or near the surface and is often used to prioritize more soil sampling for further radioanalyses. The results of the scanner van are one line of evidence that EPA relied on in

investigating questions brought up regarding Parcel A, but it is not the only source of information. Please see below (response to question #2) for additional investigation and cleanup conducted on this parcel.

Q2: It's our understanding that there will now be resampling of parcels, and that Parcel A is not included. Given the allegations from the whistleblowers, and concerns about the inadequacy of the 2002 EPA scanner van survey of Parcel A, should a comprehensive soil survey for radiation now be conducted on Parcel A? If not, why not?

Historically, the majority of Parcel A was used for residences and administrative offices, not industrial activities. The only radiological materials found at Parcel A were sandblast grit and firebricks; these have since been removed. Former Buildings 322, 816, and 821 had potential for radiological contamination. The Navy scanned all three buildings and did not find radiological contamination above required cleanup levels. Buildings 322 and 816 were demolished and removed. Building 821 is located on Crisp Road, not in the developed portion of Parcel A. No other sources of radiological contamination were identified during the investigation or cleanup of Parcel A.

EPA understands that Tetra Tech EC Inc. did not do any radiological work at Parcel A except at Building 322, which was demolished and removed many years ago. In addition, following the removal of Building 322, an EPA health physicist conducted an independent scan of the area to confirm that the former building site was clean. The EPA health physicist did not detect any radiological contamination (attached is the memo documenting his work). Because the site was clean, it was transferred without restriction.

Q3: Specifically, have you followed up on the claim of Anthony Smith that he found a hot cesium sample on Parcel A? Should that specific location on Parcel A be tested for radiation and/or remediated?

EPA took seriously Mr. Smith's claim, and multiple EPA staff have conducted field visits to the location that Mr. Smith indicated. This location was actually on Parcel UC-2, adjacent to Parcel A. In 2012, after Mr. Smith's reported sample collection occurred, the Navy contractor Engineering / Remediation Resources Group removed all soil down to a depth of two feet below the surface (unless bedrock was encountered at a more shallow depth) and replaced it with clean soil at this location as part of placement of a "durable cover" required across the entire site. The new clean soil came from outside the shipyard and was tested for radiological and chemical contamination before it was imported. This link gives documentation of this cleanup work: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=38440004&doc_id=60308702.

Attached is a relevant excerpt from this documentation for your convenience.

Q4: There is a commercial kitchen close to the location where Smith says he took the hot cesium sample. Are you concerned about this, from a safety standpoint? Should the public be concerned? Should the owners and clients of the kitchen be concerned? If not, why not?

No, we are not concerned about this from a safety standpoint. Please see response to question #3.

Q5: There are construction crews who have recently worked on Parcel A without protective gear to prevent radiation exposure. Should they be concerned about possible exposure to radioactive materials? Should the people they come into contact with, such as their families, be concerned? If not, why not?

Based on the information we have at this time, we have no reason to question any cleanup work performed on Parcel A. Please see responses above.

Q6: Do you still have confidence in the work that Tetra Tech did on Parcel A cleanup, including its remediation of radiological contamination in a handful of buildings (322, 816, etc) and its replacement of excavated soil with backfill they said was clean?

Regarding buildings, please see the above response to question #2. Regarding backfill, we need more information before we can evaluate this concern. If there are any additional details to share about this concern, individuals can contact EPA's cleanup project manager Lily Lee at 415-947-4187 and lee.lily@epa.gov.

Q7: We have been told by a former Hunter's Point technician that he took a walk near the site in February of this year and observed the site through binoculars for an hour. He said he saw a dump truck digging up loads of wet slushy material from the shoreline at the border of Parcel E/Parcel F, then driving the material to a hillside on or near Parcel A and dumped the material on the hill. Our source says there was no radiation control of the truck as it moved from a potentially contaminated part of the site (Parcel E/F) to Parcel A. Are you aware of any similar breakdowns in radiation protocol at the site right now? Have you investigated any such breakdowns?

This is the first we have heard of this information, so we cannot respond at this time. We will look into this further based on the information you have already provided. If there are any

additional details to share about this event, individuals can contact EPA's cleanup project manager Lily Lee at 415-947-4187 and lee.lily@epa.gov.